

TRANSFER OF A THIN LAYER FROM A WAFER COMPRISING A BUFFER LAYER

5

ABSTRACT

A process for producing a structure of a thin layer of semiconductor material obtained from a composite structure donor wafer. The donor wafer includes a lattice parameter matching layer of a matching substrate that advantageously has an upper layer of
10 semiconductor material having a first lattice parameter. A film of semiconductor material having a second, nominal, lattice parameter that is substantially different from the first lattice parameter is strained by the matching layer. A region of weakness is created in the matching substrate to facilitate splitting. A relaxed layer has a nominal lattice parameter that is substantially identical to the first lattice parameter. The relaxed layer is transferred to a
15 receiving substrate. A number of different wafers can be made by this process.